

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions,
and listings, of claims in the application:

LISTING OF CLAIMS:

1-12. (cancelled)

13. (currently amended) An information recording apparatus which irradiates a laser light onto a recording medium and forms a recording mark corresponding to a recording signal, comprising:

a light source which emits the laser light;

a signal generating unit which generates a recording pulse signal for driving the light source based on the recording signal; and

a test writing unit which drives the light source based on the recording pulse signal and executes test writing,

wherein the recording pulse signal includes a mark period for forming the recording mark and a space period for forming no recording mark,

wherein the test writing unit executes the test writing with making a recording power of a long mark constant and varying a recording power of a short mark,

wherein the recording power of the long mark is determined such that waveform distortion does not occur or the waveform distortion becomes equal to or smaller than a predetermined value, the waveform distortion indicating a ratio of distortion amount of an RF signal generated by reproducing recording marks recorded by the test writing wherein the short mark is a mark which does not have a level of largest magnitude, and the long mark is a mark which has a level of largest magnitude.

14. (previously presented) The information recording apparatus according to claim 13, wherein the recording power of the long mark is a recording power ensuring reproduction compatibility.

15. (previously presented) The information recording apparatus according to claim 14, wherein the recording power of the long mark is a recording power making a modulation degree within a predetermined range.

16-19. (cancelled)

20. (previously presented) The information recording apparatus according to claim 13, wherein the short mark is a shortest mark and the long mark is a mark other than the short mark.

21. (previously presented) The information recording apparatus according to claim 13, wherein the short mark is a shortest mark and a second shortest mark, and the long mark is a mark other than the short mark.

22. (cancelled)

23. (currently amended) An information recording method which irradiates a laser light onto a recording medium and forms a recording mark corresponding to a recording signal, comprising:

a signal generation process which generates a recording pulse signal for driving a light source based on the recording signal; and

a test writing process which drives the light source based on the recording pulse signal and executes test writing,

wherein the recording pulse signal includes a mark period for forming the recording mark and a space period for forming no recording mark,

wherein the test writing process executes test writing with making a recording power of a long mark constant and varying a recording power of a short mark,

~~wherein the recording power of the long mark is determined such that waveform distortion does not occur or the waveform distortion becomes equal to or smaller than a predetermined value, the waveform distortion indicating a ratio of distortion amount of an RF signal generated by reproducing recording marks recorded by the test writing~~
wherein the short mark is a mark which does not have a level of largest magnitude, and the long mark is a mark which has a level of largest magnitude.

24. (currently amended) A computer program product in a computer-readable medium executed in an information recording apparatus which comprises a light source and irradiates a laser light onto a recording medium to form a recording mark corresponding to a recording signal, and the program making the information recording apparatus execute:

a signal generating process which generates a recording pulse signal for driving the light source based on the recording signal; and

a test writing process which drives the light source based on the recording pulse signal and executes test writing,

wherein the recording pulse signal includes a mark period for forming the recording mark and a space period for forming no recording mark,

wherein the test writing process executes test writing with making a recording power of a long mark constant and varying a recording power of a short mark,

~~wherein the recording power of the long mark is determined such that waveform distortion does not occur or the waveform distortion becomes equal to or smaller than a predetermined value, the waveform distortion indicating a ratio of distortion amount of an RF signal generated by reproducing recording marks recorded by the test writing, wherein the short mark is a mark which does not have a level of largest magnitude, and the long mark is a mark which has a level of largest magnitude.~~

25. (new) The information recording apparatus according to claim 13, wherein the recording power of the long mark is determined such that waveform distortion does not occur or the waveform distortion becomes equal to or smaller than a predetermined value, the waveform distortion indicating a ratio of distortion amount, with respect to magnitude, of an RF signal generated by reproducing recording marks recorded by the test writing.